2025 Central New Mexico STEM Research Challenge

March 19-23, 2025

Project Materials Guidelines

In addition to required ISEF Forms (grades 6-12) or Elementary Forms (grades 4-5), **ALL students will be required to upload the following as part of the online registration:**

1. Profile Picture
2. Abstract
3. Virtual Project Board

Additionally, students ***may*** upload the following (not required):

1. Research Report

DEADLINES

February 10, 2025 ~ Student **ONLINE ENTRY DEADLINE** on zFairs

- Completed online registration including Profile Picture
- ALL required ISEF or Elementary Forms
- Abstract
- Media, Liability & Medical Release Form
- Registration Fee - $30/student

March 3, 2025
LAST DAY to upload Virtual Project Board, Research Report and/or update Abstract

Profile Picture (required)

Students will be **REQUIRED to upload a profile picture** as part of the online registration. This should be a current/recent photo taken from the chest up. There will be an area on the student registration where students may upload their photo.

Profile pictures will be used as part of the Virtual Project Showcase which replaces the in-person Open House previously held during Research Challenge. The Virtual Project Showcase will allow family, teachers, and the public to view student projects.

Project Board (required)

Students will need BOTH a physical display board to present during in-person judging interviews AND a virtual display board for the online project showcase. *There will be no in-person open house so the online project showcase allows family, friends, teachers, and other community members to view the projects. Additionally, the virtual boards will be previewed by judges ahead of judging day which is very helpful for the judges and facilitates a more productive interview.*

VIRTUAL PROJECT BOARD

ALL students will be **REQUIRED to create a project board in PDF format and upload to zFairs.**

IMPORTANT: A photo of the student's physical display board IS NOT ACCEPTABLE as the virtual project board required to be uploaded as part of registration. The virtual project board must meet the following requirements:

1. You can find virtual board templates and examples at this site: https://www.posterpresentations.com/free-poster-templates.html
   Once students have downloaded their preferred template, the file will open as a PowerPoint.

2. Students may use the personalized templates found on this site OR design their own template.

3. Students should create their board in PowerPoint or other design application and **MUST include (at a minimum) the following sections:**
   a. Header with project title and student name(s). NO OTHER personal info on board (i.e. school, grade, etc.)
   b. Abstract
   c. Rationale, Question/Purpose
   d. Hypothesis
   e. Materials and Methods
   f. Data
   g. Results
   h. Conclusions

4. Students may add additional sections as necessary to adequately explain their work.

5. Style and content guidelines:
   a. All graphics properly cited. Each photo, graph or other image whether created by the student or not (including those created by AI) must be ***individually*** cited.
   b. NO PHOTOS on board of any person other than student researcher(s).
   c. NO QR codes or live links to other materials, videos, etc.
   d. Use **12 pt OR LARGER *standard* font** (such as Times New Roman or Arial).

6. Once the board is complete, save as a PDF.

7. Upload the PDF to zFairs under the file type "Virtual Project Board" (students can upload during registration or return to their profile and upload before the project board upload deadline).

PHYSICAL PROJECT BOARD

- Students must also prepare a physical project board to display during judging. This the typical tri-fold “science fair” board or some other display board that meets the display requirements.
- The board must be no more than 30” deep; 48” wide; 108” from the floor to the top of project (or 78” from top of table).
- **IMPORTANT:** See pages 5-6 of this document for the **Display & Safety Checklist** which further details the guidelines and requirements for the project board and what is/is not allowed on the display.
    - **Please pay close attention to the requirements for properly citing any photos, graphs, or other images on the board as described on the checklist.** The last four pages of this document also give further guidance for proper citation.
- For any prohibited items listed on the Display & Safety Checklist, we recommend documenting them with appropriate photos and/or videos that can be displayed instead.

Abstract (required)

Students will be **REQUIRED to COPY and PASTE their Abstract into the registration form**.

The Abstract pasted into the registration form should adhere to the following:

- NO MORE than 250 words.
- Summary of the project that includes a brief discussion of the question/rationale, hypothesis, methods, and results.
- Should NOT include student names or project title.
- Should not be divided into sections. An abstract should be written in paragraph form using complete sentences.

For more detailed instructions on writing abstracts please review this presentation.

Research Report (optional)

Students will have the option to upload a full report in support of their project board. The Research Report is not required but students may use it to provide further explanation of their project.

The Research Report will be viewable to the public as part of the virtual project showcase as well as during judging by both category and special awards judges.

We are not providing any guidelines for content and style of the research report with the following exceptions:

- Must be in PDF format.
- Must not include any QR codes or live links to other materials.
- Must not include any personal info other than student name(s).

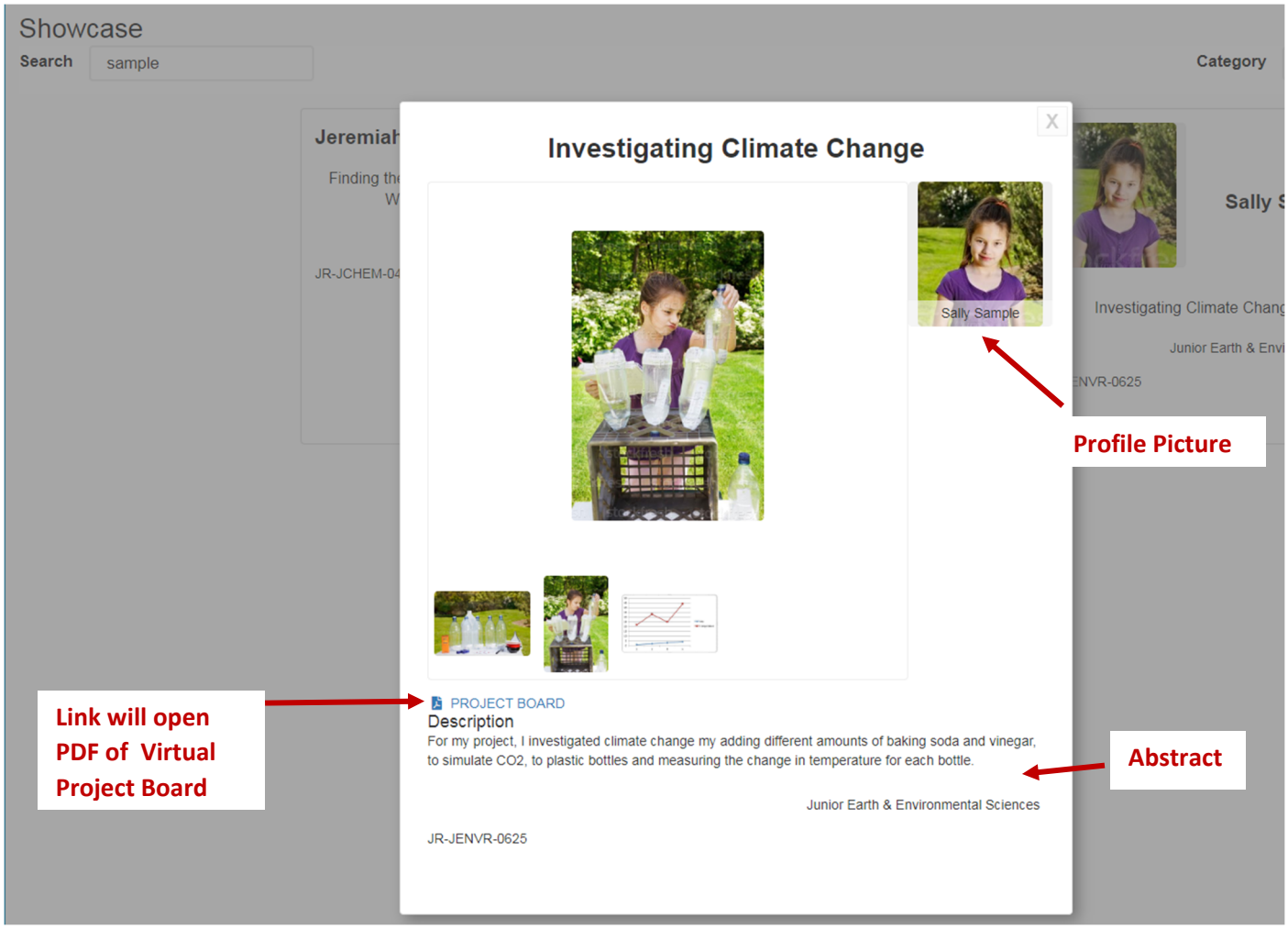
Reports should be uploaded to zFairs under the file type “Research Report”.

*NOTE: a Research **Report** is different than the Research **Plan** that is required from all students as part of the required ISEF paperwork.*

Virtual Project Showcase

An important part of Research Challenge is allowing students to share their work, not just with judges but also with their peers, families, and members of the public. We will be utilizing the ***Virtual Project Showcase*** to facilitate that purpose in place of our usual in-person Open House. Students should be sure to upload/complete all items so they have a completed profile to show off their hard work!

Below is an example of what each project profile will look like in the Showcase



Central New Mexico STEM Research Challenge

DISPLAY & SAFETY REGULATIONS AND PROJECT SET-UP APPROVAL FORM

The following regulations must be adhered to by ALL Exhibitors. **Knowledge of Display & Safety requirements is the responsibility of the Student Exhibitor and Adult Sponsor(s).** The Display & Safety Committee may require exhibitors to make revisions to conform to the regulations.

Inspectors: Check each box on BOTH sides of this form after inspected and confirmed.

☐	**The project display DOES NOT have any of the PROHIBITED ITEMS as described below and on the other side of this form.** ***Inspectors: be sure to complete BOTH sides of this form!***
☐	**Exhibitor name CANNOT appear on front of display board.** Exhibitor name, school and grade may appear on notebooks, research paper, etc. No other personal information may be shown anywhere on display.
☐	**Display Dimensions and Construction:** • The display is within 30" deep; 48" wide; 108" from the floor to the top of project (or 78" from top of table). ALL project materials fit within the given dimensions. • The display items and backboard are self-standing and stable, or secured to table. • All items on display board are attached securely. • All sharp edges on project are removed or protected. No tripping hazards are present.
☐	**ALL graphics are properly cited**. Any graph, photo, or other image on the project display whether created by the exhibitor or not (including those created using AI), **must be *individually* cited.** If the graphic was obtained on the internet, a URL or DOI must be provided. Citations must be displayed alongside the graphic or in a vertically displayed reference list.
☐	**Display of photographs** other than that of the exhibitor must have a photo release signed by the subject, and if under 18 years of age, also by the guardian of the subject (these forms must be available upon request but shall not be displayed) **OR** all faces are blacked out, covered, or otherwise obscured.
☐	**Digital Display/Devices** – Exhibitors using a digital display/device (i.e. video) MUST show the entirety of the content during inspection for approval. If a laptop is a part of the display, exhibitor must provide a laptop lock and demonstrate that it can be secured to the table. Laptops with no lock, tablets, phones used for digital displays that cannot be secured are the sole responsibility of the exhibitor and Research Challenge staff is not responsible for any loss, damage or theft.
☐	**Websites or QR codes to other materials, videos, etc. are not allowed.** *Only URLS used for citations are allowed.*

I certify that this project has been inspected and complies with all Display & Safety Requirements.

_____ _____

Display & Safety Inspector Name **Display & Safety Inspector Signature**

Please note any changes made to and/or items removed from the display:

_____

_____

_____

Student Exhibitor Acknowledgement: I hereby acknowledge that

1) I have been made aware of the display and safety requirements

2) I have been given a copy of the Exhibit Hall Map and know the Emergency Exit Plan.

3) I understand the initial inspection is complete, but a final inspection will be done before judging and regular checks are conducted throughout the Challenge to ensure continued compliance. I further understand that items may be removed from my display by Research Challenge staff at any time and without my consent if they pose a safety risk. *(Removed items will be photographed and held for exhibitor to pick up during project removal)*.

_____

Student Exhibitor Signature (or representative if student exhibitor not present)

PLEASE LEAVE THE SIGNED FORM SO IT IS VISIBLE ON YOUR DISPLAY TABLE.

ITEMS NOT ALLOWED ON DISPLAY

Photographs of these items are allowed as long as they are appropriate and not deemed offensive by Display & Safety inspectors.

❑	Living organisms, including plants	❑	Glass (including light/heat sources)
❑	Taxidermy specimens or parts	❑	Preserved vertebrate or invertebrate animals
❑	ALL chemicals including water. Absolutely no liquids can be utilized in the project display	❑	Flames and highly flammable materials. Any materials that were previously flame or fire tested.
❑	Plant materials (living, dead, or preserved) that are in their raw, unprocessed, or non-manufactured state	❑	Any apparatus with belts, pulleys, chains, or moving parts with tension or pinch points that are not appropriately shielded
❑	Human or animal food	❑	3D Printers unless the power source is removed
❑	Human/animal parts or body fluids	❑	Batteries with open-top cells or wet cells
❑	Soil, sand, rock, cement, concrete, and/or waste samples, even if permanently encased in acrylic	❑	Inadequately insulated apparatus capable of producing dangerous temperatures
❑	Sharp items (examples: syringes, needles, pipettes, knives)	❑	Any display items that are deemed distracting (i.e. sounds, lights, odors, etc.)
❑	Items that may have contained or been in contact with hazardous chemicals (Item ***may*** be permitted is professionally cleaned and documentation for such cleaning is available)	❑	All hazardous substances or devices (examples: poisons, drugs, firearms, weapons, ammunition, reloading devices, grease/oil and sublimating solids such as dry ice
❑	Drones or any flight capable apparatus unless the propulsion power source is removed	❑	Brand names, logos, copyrighted /trademarked images **UNLESS** integral to the project
❑	Incandescent and fluorescent light bulbs or any other heat generating light source	❑	Any apparatus or project material deemed unsafe by the Display & Safety Committee

5

ELECTRICAL REGULATIONS

Note: when exhibitor is not at display, all electrical power must be disconnected or switched off.

❑	Electrical power supplied to the project is standard 120 Volt, AC single phase, 60 Hz.
❑	Power strips/surge protectors and extension cords must be UL-listed, in good condition, and unmodified.
❑	Electrical devices must be protectively enclosed. Any enclosure must be non-combustible. All external non-current carrying metal parts must be grounded.
❑	Energized wiring, switches, and metal parts must have adequate insulation. Over-current safety devices (ex: fuses) must be inaccessible to anyone other than the exhibitor.
❑	Exposed electrical equipment or metal that may be energized must be shielded with a non-conducting material or with a grounded metal box to prevent accidental contact
❑	An insulating grommet is required at the point where any wire or cable enters any enclosure.
❑	No exposed live circuits over 36 volts are allowed.
❑	There must be an accessible, clearly visible on/off switch or other means of quickly disconnecting from power source.

LASER/LASER POINTER REGULATIONS

❑	Any Class 1, 2, 3A, or 3R lasers are allowed to be used RESPONSIBLY. No other lasers are allowed.
❑	Laser beams may not pass through magnifying optics such as microscopes and telescopes.
❑	Lasers must be labeled by the manufacturer so that power output can be inspected. Lasers without labels will NOT be permitted.
❑	Use of handheld lasers is discouraged.
❑	Lasers will be confiscated with no warning if not used in a safe manner.

Regeneron ISEF D&S Graphic Credit Guidance

The following document is intended to provide examples of proper graphic citation according to the ISEF Display & Safety Rules:

- ALL graphics that are created by the Finalist MUST BE properly cited individually using statements such as “Photo taken by Finalist”; “Image created by Finalist using . . .”; Graph created by Finalist using . . .”; Chart created by Finalist using . . .”; or “Data Table created by Finalist”; “Logo created by Finalist.”

- ALL graphics not created by the finalist(s) MUST BE properly cited individually (APA format is preferred). If the graphic was obtained via the Internet then a URL must be provided (digital object identifiers are acceptable in place of long URLs). This applies even if the license under which the graphic was obtained does not require credit or citation.

- A citation must be provided alongside the graphic or in a vertically displayed reference list.

Graphic Example #1:

Graphics obtained from the Internet under creative common license (CC 2.0).

Note: The image and citation formats below were sourced from APA's Clip Art or Stock Image References Guidelines: https://apastyle.apa.org/style-grammar-guidelines/references/examples/clip-art-references

Image citation alongside image:

Figure 1: Lava the sled dog.
Note. From Lava [Photograph], by Denali National Park and Preserve, 2013, Flickr (https://www.flickr.com/photos/denalinps/8639280606/). CC BY 2.0.

Image Citation using Reference List:

Figure 1: Lava the sled dog. *[1]*

Graphic Reference List:

[1] Denali National Park and Preserve. (2013). Lava [Photograph]. Flickr. https://www.flickr.com/photos/denalinps/8639280606/

Graphic Example #2:

Figure/Chart/Graph/Logo created by finalist.

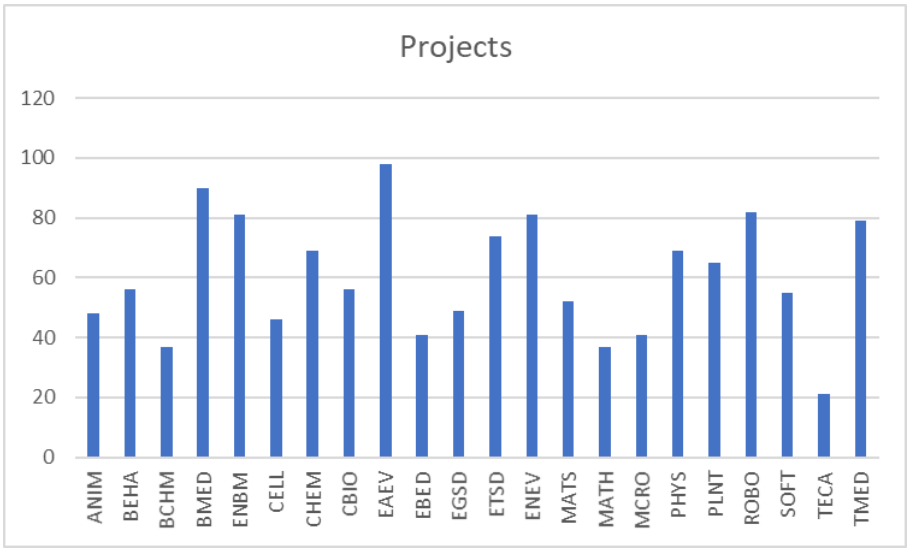


Figure 1: Number of projects per ISEF category.

Graph created by finalist, 2024.

Graphic Example #3:

Graphic created by finalist using Canva/BioRender/Microsoft PowerPoint/R/Any third-party software.

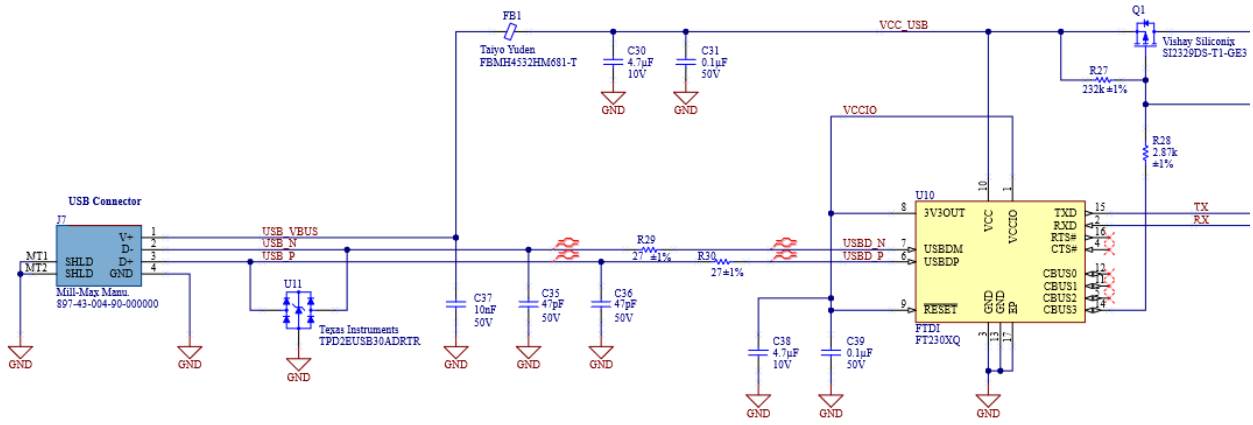


Figure 1: Schematic of USB Interface

Graphic created by finalist using Altium Designer, 2024.

Graphic Example #4:

Photo taken by finalist of themself using tripod and timer.

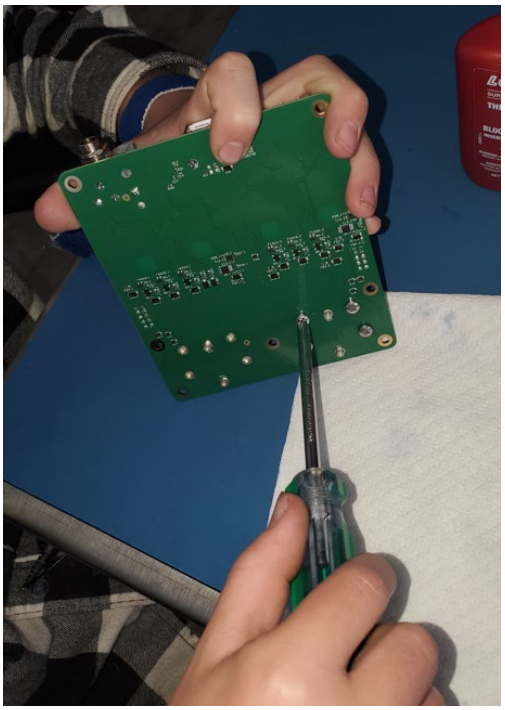


Figure 1: Finalist Assembling Circuit Board

Image taken by finalist, 2024.

Graphic Example #5:

Photo taken of team by another individual.

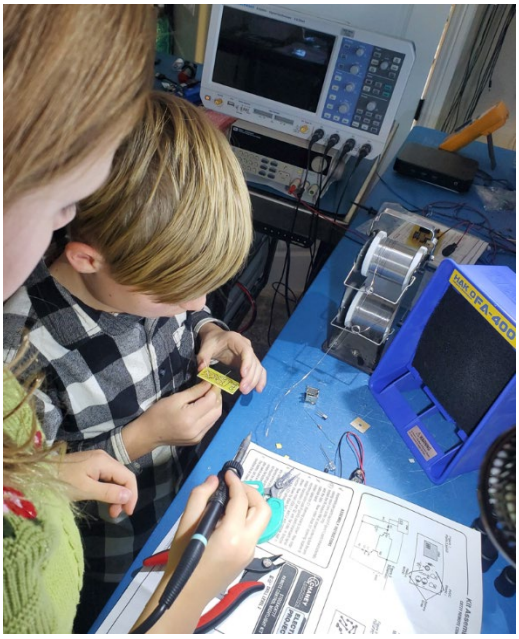


Figure 1: Finalists Building Electronics Interface Unit

Image taken of finalists by finalist's parent, John Doe, 2024.